

REMARKS

Reconsideration of this application is respectfully requested in view of the above amendments and the remarks contained herein.

STATUS OF CLAIMS AND SUPPORT FOR AMENDMENTS

Upon entry of this amendment, claims 2, 3, 5-14, 17, 19, 21, and 23 will be pending in this application. Claims 5-14 have been withdrawn from consideration. Claims 1, 4, 15, 16, 18, 20, and 22 have been cancelled without prejudice to, or disclaimer of their subject matter. Accordingly, claims 2, 3, 17, 19, 21, and 23 are presently being examined on the merits.

Support for the amendment to claim 21 can be found in the specification at page 7, lines 14-18, the Examples, and in original claim 4. Claim 23 merely places the alleged indefinite parenthetical expression of claim 21 into a dependent claim.

OBJECTION OF SPECIFICATION

On page 2 of the Office action dated June 23, 2011 the Office has objected to the specification. Applicants submit that the amendments to specification render this objection moot. Accordingly, this objection should be withdrawn.

Applicants note that this application has had eight (8) Office actions issued to an obviously pro se applicant, and yet not until Applicants file their Appeal Brief does the Office choose to raise the issue of the alleged inappropriate material on the first page of the specification. The Office provides no support in the rules or the MPEP for its assertion that this material must be removed, and provides no explanation for why it took the Office eight (8) Office actions and why the Office put the Applicants to the trouble and expense of preparing and filing an Appeal Brief before the reviewed the specification sufficiently to recognize that the allegedly offending subject matter was present. Presumably, the Office has now sufficiently reviewed the specification

that any further minor issues have been raised, so that Applicants can resolve them now, rather than waiting until after the next Appeal Brief has been filed.

INDEFINITENESS REJECTION

On pages 2-3 of the Office action dated June 23, 2011 the Office has rejected claims 2, 3, 17, 19, and 21 under 35 U.S.C. § 112, second paragraph, as indefinite. Applicants respectfully traverse this rejection for the reasons given below.

The Office states:

The phrase "in the amount of 50%" in item (b) of claim 21 renders claim 21 and all its dependent claims indefinite because the limitation renders the limitation of a matrix of titanium or titanium alloy as a major component (i.e. greater than 50%) in item (a) of claim 21 indefinite.

Office action dated June 23, 2011 at page 3. First, Applicants note that the Office has not explained how it knows that a material present in an amount of 50% by volume will necessarily be present in an amount of over 50% by weight, and thus form a "major" component. Second, in an attempt to advance prosecution, Applicants have amended claim 21 to avoid the terminology to which the Office objects.

The Office states:

The phrase "complex carbide- and/or silicide" in item (c) of claim 21 renders claim 21 and all its dependent claims indefinite because it is unclear whether it means complex carbide and/or complex silicide or complex carbide- and/or complex carbide silicide. In the list after the phrase "such as", complex carbides (e.g. (Ti,V)C, complex carbide-aluminides (e.g., Ti₃AlC₂), complex carbide-silicides (e.g. Ti₃SiC₂) and carbides (e.g. V₂C) are included. It is noted that there is no complex silicide in the list and the carbides should not be included in the list.

Office action dated June 23, 2011 at page 3.

First, Applicants are entitled to be their own lexicographer, and if they wish to define V₂C as a "complex" carbide, then they should be able to do so. The Office

has not provided any evidence suggesting that this usage is contrary to what those skilled in the art would understand.

Second, Applicants have, in the interest of expediting prosecution and in the hopes of avoiding another eight (8) Office actions in this application and/or of reducing issues for the next Appeal Brief, have amended claim 21 so that it is abundantly clear to even those with minimal skill in the art that Applicants refer to complex carbides, complex silicides, or both. Moreover, Applicants have removed the list of carbides to newly added dependent claim 23. Accordingly, the Office's objections concerning the use of the term "such as" have also been rendered moot.

Again, Applicants express their dismay that the Office has issued eight (8) Office actions and put Applicants to the time and expense of preparing and filing an Appeal Brief before the Office raises these alleged issues.

Applicants submit that the claims are unambiguous, and that those having skill in the relevant art are readily able to determine whether a particular composite material falls within the scope of Applicants' claims. This is all that is necessary to satisfy the requirements of 35 U.S.C. § 112, second paragraph. See *In re Miller*, 169 USPQ 597 (CCPA 1971). Accordingly, this rejection should be withdrawn.

ANTICIPATION REJECTION

On pages 3-5 of the Office action dated June 23, 2011, the Office has rejected claims 2, 3, 17, 19, and 21 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,059,490 (Bruppacher et al.). Applicants respectfully traverse this rejection for the reasons given below.

The Office action states:

(the instantly claimed "ceramic and/or intermetallic hard particles" do not require the presence of intermetallic hard particles including Al₈V₅ and the limitation of "50% by volume or less" as instantly

claimed does not require the presence of the ceramic hard particles)

Office action dated June 23, 2011 at page 4. Put another way, the Office has taken the rather bizarre position that, even though the claims positively recite the presence of ceramic and/or intermetallic hard particles, and even though the claims positively recite that these hard particles must include Al₈V₅, because the claims recite a maximum, in volume percent, on the amount of these particles, this means that the particles need not be present.

In order for Bruppacher et al. to anticipate Applicant's claims it must contain, within its four corners, an embodiment that contains every feature of Applicants' claims, arranged as recited in Applicants' claims. See *Net MoneyIN Inc. v. VeriSign Inc.*, 545 F.3d 1359, 88 USPQ2d 1751 (Fed. Cir. 2008); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); *In re Arkley*, 455 F.2d 586, 172 USPQ 524 (CCPA 1972).

First, Applicants submit that the Office has taken the concept of "giving claims their broadest interpretation" to a logical absurdity, and that it is not reasonable to conclude that a positively recited claim element need not be present merely because the claim also recites a maximum amount of the claimed material.

Second, Applicants note that the Office first relied upon the Bruppacher et al. reference to reject Applicants' claims in November, 2008. The language which the Office now chooses to interpret so broadly has been present in this application since November, 2009. Yet only now, after putting Applicants to the time and expense of preparing and filing an Appeal Brief, does the Office suddenly recognize that Bruppacher et al. allegedly anticipates the claims.

Third, Applicants have amended claim 21 so that it is now even more clear that the hard particles must be present, and that the Office's distorted interpretation of claim 21 is incorrect.

Applicants submit that the Office has completely failed to establish anticipation of the claimed invention by Bruppacher et al., and that this failure is even more clear following Applicants' amendment of claim 21. Accordingly, there is no anticipation and this rejection should be withdrawn.

OBVIOUSNESS REJECTION

On pages 5-8 of the Office action dated June 23, 2011, the Office has rejected claims 2, 3, 17, 19, and 21 under 35 U.S.C. § 103(a) as obvious over Bruppacher et al. in view of U.S. Patent No. 7,189,342 (Ferguson) and further in view of U.S. Patent No. 5,696,619 (Knipe et al.). Applicants respectfully traverse this rejection for the reasons given below.

The complete failure of Bruppacher et al. to teach or suggest the features of Applicants' claims have been explained above. Neither Ferguson nor Knipe et al. cure these deficiencies, even if they were properly combinable with Bruppacher et al., which they are not. Ferguson relates to a layered tape-cast cermet manufactured by fusion of a filler metal, and does not involve sintering or solid-in-solid diffusion. It is unrelated to either the field of endeavor or the same problems being solved by Applicants, and is therefore not analogous prior art. See *In re Klein*, 2010-1411 (June 6, 2011). Similarly, Knipe et al. is directed to the composition of sputtered Ti-W alloy films. It also does not involve sintering or solid-in-solid diffusion, and it too is not analogous prior art for the same reasons as Ferguson. Accordingly, neither of the secondary references are properly combinable with Bruppacher et al. as references against Applicants' claims.

However, even if these references were properly combinable, they fail to cure at least one of the deficiencies of Bruppacher et al., namely its acknowledged failure to disclose the presence of particles of Al₈V₅, so that even if combined, the references fail to teach or suggest every feature recited in the claims.

For these reasons, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness, and that this rejection should be withdrawn.

CONCLUSION

Applicants submit that this application is in condition for immediate allowance, and an early notification to that effect is respectfully requested. If the Examiner has any questions about this application, or believes that any issues remain to be resolved, the Examiner is respectfully requested to contact the undersigned to arrange for a personal or telephonic interview to resolve these issues prior to the issuance of another Office action.

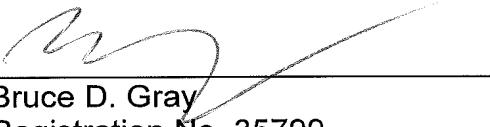
The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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